Social Science in Humanitarian Action

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Guidance note 1. Contextual factors and risks to cholera/AWD transmission in Somalia and the Somali Region of Ethiopia

Background

Drought, famine and cholera/AWD (Acute Watery Diarrhoea) outbreaks have become recurrent in the Horn of Africa. Famine and cholera/AWD outbreaks in the Somali regions are often manmade. While there are environmental factors involved, such as decreased rainfall and decreased vegetation cover, the conflict is the main driver of the humanitarian emergency. Violence prevents people from accessing adequate water sources, displaces them to settlements with poor water and sanitation and impedes them reaching health care centres. In addition, in a drought, water becomes scarce and pathogens accumulate in stagnant waters, and people and cattle are pushed to use these contaminated waters, sharply increasing the risk of a cholera/AWD epidemic.

The purpose of this guidance note[1] is to support UNICEF staff in understanding the contextual factors (the practices, behaviours, social norms and wider factors) that shape risks of cholera transmission, being able to separate the social and cultural factors from those that are more structural or systemic.

The guidance is intended for use by cholera/AWD response staff, Communication for Development (C4D) staff, government counterparts and implementing partners. It aims to give an overview of the key issues and a set of recommendations that will need to be adapted to specific local situations where a cholera epidemic unfolds.

Who is at risk?

During droughts different livelihood groups have different vulnerabilities to cholera infection:

- **Internally displaced people (IDPs)** are likely to have poor access to poor water and sanitation facilities and, if crowded in camps or with family members in cities, they will be highly vulnerable to cholera outbreaks.

- **Urban dwellers** are more likely to have better water and sanitation facilities and access to health clinics, although if there is overcrowding with high influx of refugees and displaced people sanitation is generally poor and the risk increases.

- Due to settlement, **agropastoralists** (who combine agriculture and livestock production) and **farmers** are more likely to be at risk of cholera, and the outcomes will depend on their level of nutrition, water and sanitation facilities and availability of healthcare.

- **Riverine farmers** in times of drought are relatively more likely to depend on contaminated surface water, and hence are at risk of cholera infection.

- **Pastoralists** have better health and nutrition outcomes than settled communities. Their mobility reduces their exposure to high levels of infectious epidemic disease, including cholera. However, when pastoralists' movement is constrained (through conflict or drought) or people are settled (as a result of development projects or loss of cattle/destitution), the risk of cholera increases.

[1] The research was commissioned by the UNICEF Eastern and Southern Africa Office (ESARO) and Communication for Development (C4D) and undertaken by the Social Science in Humanitarian Action Platform. The Platform provides evidence synthesis and social science analysis of the social dimensions of humanitarian emergencies. To read the full report, and find out the full list of contributors, see http://www.socialscienceinaction.org/resources/contextual-factors-shaping-cholera-transmission-treatment-seeking-somalia-somali-region-ethiopia/

Drought, conflict and food insecurity has been a recurrent phenomenon for decades in the region. Communities however, at the end of each drought cycle, do not bounce back to where they were. There is a progressive depletion of their assets and savings, their resilience is decreased in every drought recurrence. Pastoralist livelihoods, if herds and people are allowed to be mobile, protect against cholera transmission. If, however, due to conflict, privatisation or water scarcity pastoralists lose their mobility and settle temporarily around water points, the risk of transmitting cholera increases substantially.

Internal displacement has meant moving with relatives in towns into urban areas and joining existing settlements or creating new settlements on the periphery of towns (e.g. in makeshift camps around Bidaoua and Mogadishu), or alternatively to Internal Displace People (IDP) camps. These movements mean overcrowding and stretching the capacity of the sanitation systems. There is an established link between IDP camps and urban overcrowding with cholera outbreaks, due to the fact that already inadequate sanitation services are overstretched and there is a low per capita availability of water. There is also a link between malnutrition and susceptibility to illness.

Actions for cholera epidemics:

- Assess the mobility (or lack of it) of pastoralist communities
- Assess migratory patterns and the pressures on water and sanitation capacity of formal or informal IDP camps and urban communities
- Assess the quality of water sources used to identify populations at risk

Separating 'behaviours' from 'structural factors'

The main determinants of cholera risk go beyond the humanitarian and into the realm of peacebuilding and development. Somalis are more vulnerable to cholera due to (i) the lack of access to water resources and health services due to conflict, (ii) erosion of livelihoods, settlement and enclosure; and (iii) a lack of investment in adequate water and sanitation facilities.

Assessments of the recurrent droughts and cholera outbreaks in the region have highlighted the crucial lack of infrastructure, mainly in terms of water and sanitation, but also in terms of roads to enhance physical and economic access. Cholera, an entirely preventable disease, occurs because there isn't an appropriate sanitation infrastructure, hence there is run-off sewage, a lack of latrines and open defecation, a lack of piped water and water point availability for food and handwashing and so on. The transmission of cholera is not primarily about 'behaviours', but around basic water and sanitation infrastructures. For example, in 2017, Somaliland and Puntland had better outcomes in terms of cholera prevention and containment mostly due to relatively better infrastructure such as more piped water and sanitation.

When the rains come after a drought within a cholera epidemic, they will be a mixed blessing. While rains will be positive for the vegetation and will replenish water sources, they may bring a spike of cholera cases, as rainfall run-off carries the cholera bacteria to pool in lower areas and into water sources, thereby contaminating them.

Actions:

- Structural issues such as humanitarian access within the conflict and the state of water and sanitation facilities have a stronger influence on risk than behaviours: this must be considered by information campaigns
- On top of the usual messaging (hand and food washing, defecation, contact with cholera patients, and so on), people should be warned of water consumption after the first rainfalls following droughts

Behaviours and cholera control

A number of behavioural factors should be integrated into prevention and control:

- **Water use and handwashing:** People understand the value of chlorination and the majority use hygiene kits when it is provided by humanitarian aid (including soap and chlorine tablets). However, people may turn to 'sweeter' water from rivers when the first rains come, although these carry the runoff with cholera infested sewage. Ritual ablutions can be a source of contamination if contaminated water is utilised. Hand washing points next to latrines are mostly unavailable.

- **Open defecation (OD)**: Somali's understand the risks associated with OD and value latrines. OD is frequent in nomadic communities, but is low risk due to mobility and dispersion of these populations. The highest cholera risk from OD is in IDPs, who are forced to practice it close to their homesteads. Disposing of baby and toddler faeces is problematic and alternative solutions should be explored.

- **Funeral practices:** Bodies of cholera fatalities are highly infectious. Yet mourning requires ritual washing of the body by family members. There are precedents of introducing safe practices (gloves, disinfectant) whilst respecting the religious needs of mourners.

- **Rehydration (ORS and IV fluids)** are generally accepted and are used (either with homemade recipes or purchased ORS) in cholera occurrence in parallel to visits to clinics.

- **Oral Cholera Vaccination**: is generally valued and accepted, particularly when vaccination campaigns adapt to people's mobility as in the case of polio vaccination: with in-transit, regional vaccination points in parallel to livestock vaccination. Low literacy, rurality, social vulnerability and larger households are correlated with lower acceptance of oral vaccines. Importantly, reliance on prayer could, depending on the context, lead to higher or lower acceptance, showing that there is not necessarily a competition between prayer as healing and biomedical interventions. The

Enabling safe ablutions and funeral practices

Because water is part of **ritual ablutions** Somalis are reluctant to use latrines where there is no water provided i.e. the majority of latrines built by aid agencies. People prefer to take their jerrycan and go to the water source, collect water and go to covered/private areas such as *lagaas*, water pans and *berkeds*. These practices greatly increase the contamination of unprotected water sources and hence the spread of cholera. Humanitarian intervention, for example in those in IDP camps, should incorporate the need for safe/treated water and soap in handwashing facilities next to latrines where privacy and security is guaranteed.

Traditionally in Islam, the **body is ritually washed after death** and a perfume called *Adar* is applied. Women wash women and men wash men with a small cloth and perform prayers. In the case of children, either a man or a woman can wash the child's body. Children under 16 do not attend these rituals. Mourning and washing the body contrasts with the UNICEF recommendations for cholera transmission, since dead bodies are highly infectious; while preventing contamination, the recommendations may portray the body of the loved one as toxic material to be disposed of. Rituals are not set in stone, however, and they can be transformed (although not dispensed with altogether) in different contexts. Solutions may involve incorporating disinfectant into washing rituals (by emphasising the symbolic nature of them) and incorporating the imam and assistance. into the burial. Options should be discussed with family members and religious leaders.

success in HIV prevention messages through mosques show that it is possible to work with religious actors.

There needs to be an acknowledgment of the limitations of mass messaging in yielding behaviour change: in the 2017 cholera epidemic, Somalis relied on information from neighbours and community leaders about AWD much more than radio or television. Community health workers at local level can raise awareness of cholera transmission risks and promote behavioural change. On occasions greater biomedical knowledge does not necessarily translate into behavioural change. Whilst there is a degree of impact in behaviour change through communication initiatives, expectations must be realistic about the constraints people face. In the recent 2017 Cholera/AWD epidemic, the discrepancy between information and behaviour change is explained due to lack of adequate water and sanitation facilities and the extreme scarcity of water that obliges people to prioritise drinking over other risk prevention behaviours, such as washing.

Diarrhoea, AWD/Cholera and messaging

Somali people are able to distinguish (through colour and texture) pathological diarrhoeas (*shuban, daacuun,* see below), from those that are normal, regulating and cleansing. For instance, a green diarrhoea, is the product of drinking camel milk with the objective of regulating bile (*dacar*), purging germs and worms and resuming gastrointestinal movement. Also a teething diarrhoea, of a yellowy colour, is considered normal, and traditionally it was thought that the diarrhoea was due to the 'fox teeth/red worm', the canine lower cusp responsible for constant irritation in the mouth. Mothers would take their children to traditional healers who would remove the teeth, a practice called *Ilko dacowo*.

Somalis distinguish (at least[2]) three types of pathological diarrhoea, which have different treatments and determine different treatment-seeking behaviours. Note that malnutrition and pathological diarrhoeas are linked, with two-directional causality: malnourished children are more likely to fall ill with diarrhoea and diarrhoea means children become undernourished because malabsorption of nutrients.

Shuban **(normal diarrhoea)**

'Normal' or 'Soft' diarrhoea; or when watery, *shuban biyoot* (watery diarrhoea). Traditionally this did not have the connotations that AWD has today; it was a clarification of consistency of faeces. *Shuban* is treated with ORS, and with recitations of the Koran and Prayer. If that does not work, lemon juice, and then, when there is improvement, lots of other fluids (sugar water and salt, lean meat, rice water or sour milk without fat). Fresh milk is withheld, but breastfeeding is continued. If home cures do not work, they are taken to another facility, either biomedical or traditional where herbs and prayer would be used. Urban, settled educated mothers are more likely to use ORS. Women who have a stronger position in the household are also more likely to seek treatment for their children. In urban areas families are more likely to use ORS and modern medicine from private facilities to manage diarrhoea.

Typical treatment seeking process: normal diarrhoea treatment starts with traditional home treatment, if it fails, then a traditional healer is sought and if that fails, the child is brought to the health facility.

[2] Other diarrhoeas are *geed sare*: "literally translates as, "tree top," but refers to common, "soft," (compared to watery) and darker colour diarrheal disease in children. It is often treated with teas made from the leaves harvested from the tops of trees. The most common treatment is to put cook and/or mashed leaves from the top of the qood tree on the child's fontanel or the top of their head." And *Laan*: diarrhoea in children that is dark in colour. The most common treatment is either to give the child fresh camel milk or to feed them camel milk plus cook and/or mashed leaves from the qood tree on the child's fontanel or the top of their head." (Carruth, 2011: 354)

***Shuban Dhiig* (dysentery – literally bloody diarrhoea)**

Recognised as diarrhoea with blood and mucus. The treatment in rural areas is the use of ghee/fat from sheep and special nutritious soups. In urban areas also water melon juice, fermented milk (*garoor*), and medicinal roots are administered. If in three days there is no improvement, the patients are taken to the health facility.

Typical treatment seeking process: first traditional treatment and if that fails, a health facility.

***Daacuun* or *Kaloraa* (Cholera)**

The whitish colour as that of the water of cooked pasta is clearly identified by mothers as cholera. Mothers understand the urgency of the situation, seeing cholera diarrhoea as a mortal threat to children and adults. Mothers react by swiftly seeking treatment in a health facility, and unlike the other two diarrhoeas, traditional home practices and traditional healing are not prioritised. If they cannot access a health facility, families will give home-made or purchased rehydration fluids to cholera patients.

The importance of labelling diarrhoeas for cholera prevention messages is crucial. For example, in the northern Somali region, radio messaging by the government to stem an outbreak of cholera/AWD was done using the word *Shuban Biyood* (literally watery diarrhoea), instead of the word commonly used for life-threatening cholera diarrhoea: *daacuun* (or more rarely *kaloraa*). People assumed the problem was a small one, due to the wording. Because aid and governmental agencies resisted publicly defining AWD as “cholera” or even suggesting a connection between the two, the translation of AWD into *shuban biyoot* obscured the potential urgency of a cholera epidemic among the local populations involved, and left unexplained to them the rationale behind such dramatic media attention and dramatic changes in humanitarian programming.

In future messaging, either the word *daacuun* should be employed, or messages have to convey that the AWD they are referring to is life-threatening. Messages should build on the recognition of symptoms as defined by the audiences to enhance treatment seeking behaviour.

Declaring a watery diarrhoea epidemic as a cholera epidemic is politically sensitive. Governments in the region discourage the use of the word cholera and use ‘Acute Watery Diarrhoea’ instead. Yet AWD includes other pathogens other than vibrio cholera, such as rotavirus and E.coli. The Somali wording for AWD, ‘shuban biyoot’, does not elicit as strong as a response than the word for cholera, ‘daacuun’.

Messaging, even if using AWD, should highlight the real life-threatening status of a cholera epidemic to the public, and there should be transparency amongst government and development actors in cholera/AWD surveillance might ensure knowledge sharing for timely responses.

Recommendations for action

1. **Work within local understandings of cholera and communicate through a diversity of care-providers**

    - There should be enhanced transparency and open communication about cholera and about what is being done to stop its spread.
    - Communication and messaging should use the Somali word for cholera (‘*daacuun* or *kaloraa’)* whenever possible. However, if the word for AWD in Somali (‘*shuban biyoot*’) is used then messaging that highlights the gravity of the situation, indicating that it is a life-threatening kind of AWD should accompany it. Key information may not come solely from radio or television, but in also face-to-face exchanges with neighbours and community leaders, particularly clan and religious leaders and elders.
    - Interventions should be relevant to different livelihood groups. For example, maximising impact among pastoralists in cholera vaccination: using mass transit points, linking it to livestock vaccinations and using a regional (rather than national) approach.
    - Recognise the role of religion and religious beliefs and build on them – for example, working with religious leaders in promoting safe practices for cholera prevention.
    - Engage with pharmacists and traditional and Islamic healers to promote cholera prevention and control, getting messages through them, as well as providing health training for referral to biomedical clinics when necessary.

2. **Recognise and incorporate religious and spiritual practices when addressing care seeking and giving recommendations around burial practices and ablutions**

    - Build infrastructure to facilitate safe ablutions – for example, water points for handwashing with soap and treated water for ritual ablutions.
    - Promote safety procedures within funeral practices while incorporating the religious and spiritual needs of mourners.

References

Aden, A.; Omar, M. and others (1997) 'Excess female mortality in rural Somalia – Is inequality in the household a risk factor?', Social Science and Medicine, 44.5: 709–15.

Carruth, L. (2011) The aftermath of aid: Medical insecurity in the northern Somali Region of Ethiopia. The University Of Arizona.

Crooks, A. T. and Hailegiorgis, A. B. (2014) 'An agent-based modeling approach applied to the spread of cholera', Environmental Modelling and Software, 62: 164–77.

Food Security Analysis Unit. (2007). Somali Knowledge Attitude and Practices Study (KAPS). Infant and Young Child Feeding and Health Seeking Practices. Nairobi: FSAU and FAO.

Maxwell, D. and Fitzpatrick, M. (2012). The 2011 Somalia famine: Context, causes, and complications. Global Food Security, 1(1), 5-12.

UNICEF and Farsight (2017). UNICEF WASH KAP Survey, Somalia. Hargeisa: UNICEF.

WHO (2017). Community engagement contributes to control of acute watery diarrhea in Ethiopia’s Somali region. WHO Regional Office for Africa.